United States Department of Agriculture

Common Land Unit (CLU)

INFORMATION SHEET
April 2016

What is a Common Land Unit (CLU)?

In Farm Service Agency terminology, a CLU is an individual contiguous farming parcel, which is the smallest unit of land that has:

1. A permanent, contiguous boundary
2. Common land cover and land management
3. A common owner, and/or
4. A common producer association.

Isn't that just a farmer's field?

A CLU is closely related to a farm field by definition. The Farm Service Agency (FSA) Handbook for Acreage Compliance Determinations Revision 15 (2- CP) states a field is a tract separated by permanent boundaries such as:

1. Fences
2. Permanent waterways
3. Woodlands
4. Crop lines not subject to change because of farming practices, or
5. Other similar features.

What is a CLU used for?

USDA FSA digitizes individual CLU boundaries, based upon the most current NAIP imagery, into Geographic Information System (GIS) enterprise databases and populates the associated attribute data. There are many uses for CLUs, including but not limited to:

1. Providing a link between tabular farm records and a map or image of the land
2. Using GIS for acreage calculations
3. Replacing paper maps with digital images that can be easily updated and distributed, and can produce high quality prints whenever necessary
4. Drawing crop boundaries to better define or use with other data, such as:
    a. Crop patterns
    b. Subdivisions
    c. Conservation Plans
5. Creating a central database for land unit boundaries and linking it to customers and other data sources,
6. Speeding up the process for implementing disaster payment and other specialized programs systems.

What are the benefits?

CLUs:

1. Provide timely and accurate program related data for more efficient and successful program implementation and delivery
2. Improve communication and data flow between Service Center Agencies and farmers or other customers
3. Improve communication between geospatial software applications by providing:
    a. A common set of data elements to describe every CLU
    b. Common identifiers for each unit of land, and
    c. A common framework for locating data in relation to the ground.
4. Facilitate the creation of shared data warehouses for land related data
5. Provide for the incorporation of data from outside sources, including
    a. Census or other demographic data
    b. Satellite or other aerial imagery
    c. GPS data
    d. Elevation data
    e. NOAA or other data sources
6. Provide for more consistent and more accurate land measurements, such as
    a. Field acreage
    b. Riparian buffers
    c. Wetland areas
7. Provide the ability to summarize agricultural information at the county, region, State, congressional district, or national level
8. Encourage the establishment of agreements with Federal agencies to facilitate data exchange, which can reduce resource and acquisition costs.

How were CLUs developed?

Originally, CLUs were digitized by 13 FSA digitizing centers in 7 states, and contracts with data conversion companies. CLUs were digitized on 1980s and 1990s National Digital Orthophoto Program (NDOP) imagery, using legacy photo-maps as source documents.

Who maintains the CLU data?

There are data managers at the national, State, and local level. Generally speaking, the local USDA Service Center employees maintain the CLU data for their area.

How often is CLU data maintained?

CLU data is continuously maintained by USDA county-based Field Service Centers through interaction with producers and with submissions of new imagery via the National Agriculture Imagery Program (NAIP).

What is NAIP?

NAIP is a program to acquire peak growing season "leaf on" digital imagery for use in USDA County Service Centers. NAIP is used to maintain the CLU boundaries and assist with a multitude of other farm programs. NAIP began as a pilot in 2003, and all 48 states in the continental United States have received at least four years of imagery from the program. At present, the Ground Sample Distance is 1 meter, with some pilot states receiving half meter imagery; 2016 will see 60 cm acquisitions. Since 2010, all imagery has been acquired with four bands of data (red, green, blue and near infrared.)

More information on NAIP can be obtained from the APFO website at http://www.apfo.usda.gov/

What format are the CLUs in?

The CLU data is maintained in an enterprise spatial database format, from which extractions to other formats are possible. CLU is stored in WMAS projection, and depending on FSA application, is either projected to UTM, NAD83 coordinate system, or to a geometry service which is applied to ensure accurate measurements.

Why GIS for CLUs?

The principal reasons are to enable a quick, automated method for calculating acreage and for a georeferenced graphical view of farm records. In GIS, there is a plethora of other information that can be associated with CLUs. By utilizing GIS, high quality analysis of CLUs can be accomplished, thus better tracking and decision making can be made. Some associated layers could include but are not limited to:

1. High Risk Lands
2. Wetlands
3. Land Cover
4. Conservation Practices
5. Soils
6. Roads
7. Hydrography
8. Orthoimagery

What attribute data is associated with CLUs?

Some of the attributes include:

1. Shape
2. Area
3. Perimeter
4. Field ID
5. State FIPS
6. County FIPS
7. Tract
8. Farm
9. CLU Number
10. Calculated Acres
11. Highly Erodible Land Code
12. CLUID
13. CLU Land Classification Code
14. Comments

Can I get a copy of the CLU data?

CLU is not in the public domain. Section 1619 of the Food, Conservation, and Energy Act of 2008 (Farm Bill), only allows the sharing of this data with individuals or organizations (governmental or non-governmental) certified by FSA as working in cooperation with the Secretary of Agriculture. Users of the data must be providing assistance to USDA programs, and must require access to CLU data to complete that work.

Who do I contact for more information?

1. For APFO sales and product information, contact USDA-FSA-APFO at 2222 W 2300 S, Salt Lake City UT, 84119-2020, call (801)844-2922, or visit http://www.apfo.usda.gov.
2. For further information contact GIS Specialists, David Davis at (801) 844-2933 or Louise Mathews at (801) 844-2934